

## CLAIMS:

1. A method of discovering proximate apparatuses and services in a wireless network comprising at least three base stations ( $B_j$ ), in which all apparatuses  $G_i$  ( $i \neq k$ ) determine the signal strengths  $ss(i, j)$  at which they receive signals from the base stations  $B_j$ , and the apparatuses to be discovered send these signals to a searching apparatus  $G_k$ .  
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2. A method as claimed in claim 1, wherein the searching apparatus  $G_k$  computes the distances  $r(i, j)$  of all apparatuses  $G_i$  ( $i \neq k$ ) to be discovered from the signal strengths  $ss(i, j)$  and determines the standard deviations  $\sigma(i, j)$ .
- 10 3. A method as claimed in claim 1 or 2, wherein the searching apparatus  $G_k$  computes lower and upper limits  $d_{\min}(k, i)$  and  $d_{\max}(k, i)$  for apparatuses  $G_i$  ( $i \neq k$ ) to be discovered and utilizes these values so as to determine the absolute extent of the distance of the apparatuses.
- 15 4. A method as claimed in any one of claims 1 to 3, wherein the wireless network comprises at least four, preferably at least five, particularly preferably at least six and particularly at least seven base stations ( $B_j$ ).
- 20 5. A method as claimed in any one of claims 1 to 4, wherein all apparatuses  $G_i$  to be discovered form a mean value from the signal strengths  $ss(i, j)$  measured within a given period of time and send this mean value to the searching apparatus  $G_k$  which utilizes the mean value for computing the distance.
- 25 6. A method as claimed in claim 5, wherein the period of time is 2 to 60 seconds, preferably 5 to 40 seconds and particularly 8 to 20 seconds.
7. A method as claimed in claim 5 or 6, wherein the repetition frequency at which the apparatuses  $G_i$  ( $i \neq k$ ) to be discovered send their, preferably averaged, signal

strengths  $ss(i, j)$  to the searching apparatus  $G_k$  is 0.1 to 50 Hz, preferably 0.25 to 25 Hz, particularly preferably 0.5 to 20 Hz and particularly 1 to 10 Hz.

8. A method as claimed in any one of claims 1 to 7, wherein, by means of a  
5 Discovery Framework, preferably by means of Universal Plug&Play (UPnP), the searching apparatus  $G_k$  is capable of accessing the services of the apparatuses  $G_i$  ( $i \neq k$ ) to be discovered.
9. A method as claimed in claim 8, wherein the searching apparatus  $G_k$  finds, by  
10 means of a Universal Plug&Play (UPnP) search among the apparatuses  $G_i$  ( $i \neq k$ ) to be discovered, that apparatus which provides the desired service.
10. A method as claimed in claim 8 or 9, wherein, in the case of replies to search  
15 requests, each apparatus  $G_i$  ( $i \neq k$ ) to be discovered adds information about the signal strengths  $ss(i, j)$  to the base stations  $B_j$  with which it is in radio contact.